

# **A SYSTEM AND PROCESS FOR GENERATING HIGH DYNAMIC RANGE IMAGES FROM MULTIPLE EXPOSURES OF A MOVING SCENE**

## **ABSTRACT OF THE DISCLOSURE**

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A system and process for generating a high dynamic range (HDR) image from a bracketed image sequence, even in the presence of scene or camera motion, is presented. This is accomplished by first selecting one of the images as a reference image. Then, each non-reference image is registered with  
10 another one of the images, including the reference image, which exhibits an exposure that is both closer to that of the reference image than the image under consideration and closest among the other images to the exposure of the image under consideration, to generate a flow field. The flow fields generated for the non-reference images not already registered with the reference image are  
15 concatenated to register each of them with the reference image. Each non-reference image is then warped using its associated flow field. The reference image and the warped images are combined to create a radiance map representing the HDR image.

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